

July 20, 1998

MEMORANDUM

SUBJECT: Review of "Recalculation of the ETU Soil Half-life in California Soil Dissipation Studies of Mancozeb Supplement N.1 to MRID 40923601"
Author: David M. Esterly
E.I. du Pont de Nemours and Company
Wilmington, Delaware
Report completed March 25, 1998
Submitted through the *Mancozeb Task Force*
Elf Atochem North America, Inc.
E.I. du Pont de Nemours and Company
Rohm and Haas Company
Report Number MTF-98-02
MRID #44524101

Mancozeb- PC# 014504
Reregistration Case #06443
DPBARCODE #D245185
Submission S540764

FROM: James Lin, Ph.D., Environmental Engineer
and
Henry P. Nelson, Ph.D. Chemist *H. Nelson*
Environmental Risk Branch III
Environmental Fate and Effects Division (7507C)
and
Silvia C. Termes, Ph.D. Chemist
Fate and Monitoring Branch
Environmental Fate and Effects Division (7507C) *[Signature]*

TO: Betty Shackleford/Anne Mitchell
Product Manager #53
Special Review and Reregistration Division (7508W)

THROUGH: Elizabeth Behl, Chief
Fate and Monitoring Branch
Environmental Fate and Effects Division (7507C)
and
Daniel Rieder *[Signature]*
Risk Characterization Branch III
Environmental Fate and Effects (7507C)

We have reviewed the submitted recalculation of the ETU half-life from studies conducted with Mancozeb in California. We encourage a mathematical approach to calculate the kinetics of formation and decline of degradates, such as the one presented by the author. However, we have the following comments:

1. Although the equations are correct for the stated model, the inherent variability of the field data does not lend to this approach. For example, concentrations of parent mancozeb were higher for several days after application than immediately after application.
2. The results of the recalculation obtained by the author could not be reproduced. For example, the predicted mancozeb concentration in Table 3 in the document submitted by the Task Force can not be repeated based on calculations using equation 1.

We strongly recommend that this mathematical approach be followed in the laboratory aerobic-soil metabolism studies to calculate the rate of decline of parent and the rate of formation/decline of ETU. These studies will be conducted separately with each of the EBDC fungicides (mancozeb, maneb and metiram) using the same soils and the same conditions of temperature and soil moisture content.

The EBDC/ETU Task Force submitted a proposal for these aerobic soil metabolism studies, which was reviewed by EFED. The review was completed on June 19, 1998 (DP BARCODE D246503) and forwarded to SRRD.